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**SYSTEM AND METHOD FOR READING  
DATA STORED ON A MAGNETIC SHIFT REGISTER**

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**ABSTRACT OF THE INVENTION**

10 A reading device reads the direction of the magnetic moment of domains in  
a magnetic shift register, thus reading information stored in the domains or bits  
in the magnetic shift register. Associated with each domain wall are large  
magnetic fringing fields. The domain wall concentrates the change in  
magnetism from one direction to another in a very small space. Depending on  
the nature of the domain wall, very large dipolar fringing fields can emanate  
15 from the domain wall. This characteristic of magnetic domains is used to read  
data stored on to the magnetic shift register. The reading device reads the  
direction of the magnetic moment in a magnetic shift register, thus reading  
information stored in the domains.

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